



MS APPEAL BRIEF - PATENTS
Docket No.: 0630-1287P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Se PARK

Application No.: 09/899,066

Confirmation No.: 003176

Filed: July 6, 2001

Art Unit: 2615

For: CONTROL METHOD OF CCD CAMERA

Examiner: B. J. Jelinek

APPEAL BRIEF TRANSMITTAL FORM

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief on behalf of the Appellants in connection with the above-identified application.

The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.

A Notice of Appeal was filed on June 23, 2005.

Applicant claims small entity status in accordance with 37 C.F.R. § 1.27.

The fee has been calculated as shown below:

Extension of time fee pursuant to 37 C.F.R. §§ 1.17 and 1.136(a) - \$.

- Fee for filing an Appeal Brief - \$500.00 (large entity).
- Check(s) in the amount of \$500.00 is(are) attached.
- Please charge Deposit Account No. 02-2448 in the amount of \$. A triplicate copy of this sheet is attached.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: August 23, 2005

Respectfully submitted,

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Art Unit: 2615

For: CONTROL METHOD OF CCD CAMERA

Examiner: B. J. Jelinek

BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 23, 2005

Sir:

Appellant hereby appeals from the decision in the final Office Action, dated December 23, 2004, the period for responding being extended by three (3) months to June 23, 2005, finally rejecting 1-5, 9, 11-13, 17 and 26-27 under 35 U.S.C. §103(a) as being unpatentable over Beis, U.S. Patent 5,172,220, (hereinafter referred to as "Beis") in view of Chino, U.S. Patent 6,046,863 (hereinafter referred to as "Chino"), and finally rejecting claims 6-8, 10, 14-16, 18-25 and 28 under 35 U.S.C. §103(a) as unpatentable over Beis in view of Chino, and further in view of Mizoguchi et al., U.S. Patent 5,959,669 (hereinafter referred to as "Mizoguchi").

A Notice of Appeal was timely filed on June 23, 2005.

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I. **Real Party in Interest**

The real party in interest for this Application is LG Electronics, Inc. as evidenced by an Assignment recorded on July 6, 2001 at Reel 011971, Frame 0367. No further assignments of this Application have been made.

II. Related Appeals and Interferences

To the best of Appellant's knowledge, there are no other prior or pending appeals of this Application, or patent interference proceedings, or judicial proceedings which may be related to, directly affect, or be directly affected by, or have a bearing on the Board's decision of this Appeal.

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III. Status of Claims

In the Application on appeal, claims 1-28 are pending. Claims 1-28 are rejected and are on appeal. There are no allowed claims.

IV. Status of Amendments

The Amendment under 37 CFR 1.111, filed on July 19, 2004, has been entered. Although the Advisory Action dated May 5, 2005 does not address the issue of entry of the Amendment under 37 CFR §1.116 filed on April 22, 2005, which corrected a typographical error in the specification, the Examiner, who was contacted by telephone on May 13, 2005, kindly indicated that the Amendment under 37 CFR §116 has been entered.

V. Summary of the Claimed Subject Matter

Claims 1, 11, 21 and 26-28 are independent.

Claim 1 is directed to a control method of a CCD (Charge-Coupled Device) camera 34 having at least one photographing mode, comprising: pre-storing trace data, shown, for example, in Fig. 6, of a lens for the CCD camera; detecting an illumination of a photographing region to be photographed with the CCD camera; comparing the detected illumination with a reference illumination value; setting a photographing mode of the CCD camera on the basis of comparing the detected illumination with a reference illumination value; and controlling a movement of a lens of the CCD camera in accordance with the set photographing mode by using corresponding pre-stored trace data of the lens.

Claim 11 is directed to a control method of a CCD (Charge-Coupled Device) camera 34 that has a daytime and a nighttime photographing mode, comprising: detecting an illumination of a photographing region to be photographed by a CCD camera; setting a photographing mode of the CCD camera to a daytime mode or a nighttime mode by judging whether the detected illumination is less or greater than a reference illumination value; pre-storing first trace data and second trace data, shown, for example, in Fig. 6, in a memory; loading the first trace data in the daytime mode; loading the second trace data in the nighttime mode; and controlling a movement of a lens of the

CCD camera on the basis of the first trace data and the second trace data, shown, for example, in Fig. 6.

Claim 21 is directed to a control method of a CCD (Charge-Coupled Device) camera 34 having a lens and a nighttime mode and a daytime mode, comprising: pre-storing first and second trace data, shown, for example, in Fig. 6, of a lens for the CCD camera; detecting an illumination of a photographing region to be photographed by a CCD camera; converting a photographing mode of the CCD camera into the daytime mode or the nighttime mode by judging whether the detected illumination is not less or greater than a reference illumination value; loading the first trace data for controlling a lens of the CCD camera so as to photograph the photographing region through an OLPF (Optical Low Pass Filter) when the photographing mode is converted into the daytime mode; loading the second trace data for controlling the lens of the CCD camera so as to photograph the photographing region without imaged light of the photographing region passing through the OLPF when the photographing mode is converted into the nighttime mode; and adjusting a focus of the lens of the CCD camera on the basis of the loaded trace data.

Claim 26 is directed to a CCD (Charge-Coupled Device) camera 34 having at least one photographing mode, comprising: means for pre-storing trace data, shown, for example, in Fig. 6, of a lens for the CCD camera; means 36 for detecting an illumination of a photographing region to be photographed with the CCD camera; means 37 for comparing the detected illumination with a

reference illumination value; means 37 for setting a photographing mode of the CCD camera on the basis of comparing the detected illumination with a reference illumination value; and means (38 and/or 39) for controlling a movement of a lens of the CCD camera in accordance with the set photographing mode by using corresponding pre-stored trace data of the lens.

Claim 27 is directed to a CCD (Charge-Coupled Device) camera 34 that has a daytime and a nighttime photographing mode, comprising: means 36 for detecting an illumination of a photographing region to be photographed by a CCD camera; means 37 for setting a photographing mode of the CCD camera to a daytime mode or a nighttime mode by judging whether the detected illumination is less or greater than a reference illumination value; means 37 for pre-storing first trace data and second trace data, shown, for example, in Fig. 6, in a memory; means 37 for loading the first trace data in the daytime mode; means 37 for loading the second trace data in the nighttime mode; and means (38 and/or 39) for controlling a movement of a lens of the CCD camera on the basis of the first trace data and the second trace data.

Claim 28 is directed to a CCD (Charge-Coupled Device) camera 34 having a lens (31 and/or 32) and a nighttime mode and a daytime mode, comprising: means 37 for pre-storing first and second trace data, shown, for example, in Fig. 6, of a lens for the CCD camera; means 34 for detecting an illumination of a photographing region to be photographed by a CCD camera; means 37 for converting a photographing mode of the CCD camera into the daytime mode or

the nighttime mode by judging whether the detected illumination is not less or greater than a reference illumination value; means 37 for loading the first trace data for controlling a lens (31 and/or 32) of the CCD camera so as to photograph the photographing region through an OLPF (Optical Low Pass Filter) 33 when the photographing mode is converted into the daytime mode; means 37 for loading the second trace data for controlling the lens (31 and/or 32) of the CCD camera so as to photograph the photographing region without imaged light of the photographing region passing through the OLPF 33 when the photographing mode is converted into the nighttime mode; and means (38 and/or 39) for adjusting a focus of the lens of the CCD camera on the basis of the loaded trace data.

VI. Grounds of Rejection

Initially, Appellant notes that there are two sets of rejections in this Application. This situation exists because the final Office Action, in addition to maintaining the previous rejections, presented additional rejections of the claims, as amended.

Appellant respectfully submits that this practice is improper and that the only proper rejections of record are the newly presented grounds of rejection found on pages 7-24 of the final Office Action. Compare, in this regard, MPEP §706, which points out that merely cumulative rejections, i.e., those that would clearly fall if the primary rejection were maintained, should be avoided.

Nevertheless, under the circumstances, Appellant will address all outstanding grounds of rejection in this Appeal Brief in the interest of being fully responsive to the rejections of record and to avoid, in the Appeal Brief, piecemeal prosecution of the rejections of record.

On page 3 of the final Office Action, the Examiner maintains the rejection of claims 1-5, 9, 11-13, 17, 26 and 27 under 35 USC §103(a) as unpatentable over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino.

On page 6 of the final Office Action, the Examiner maintains the rejection of claims 6-8, 10, 14-16 and 18-25 under 35 USC §103(a) over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino and further in view of U.S. Patent 5,959,669 to Mizoguchi.

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On page 7 of the final Office Action, the Examiner adds another rejection of claims 1-5, 9, 11-13, 17, 26 and 27 under 35 USC §103(a) as unpatentable over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino.

On page 14 of the final Office Action, the Examiner adds another rejection of claims 6-8, 10, 14-16 and 18-25, and also rejects claim 28, under 35 USC §103(a) as unpatentable over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino and further in view of U.S. Patent 5,959,669 to Mizoguchi.

VI. Argument

A. Claims 1-5, 9, 11-13, 17 and 26-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino. This rejection, presented in the previous Office Action regarding claims 1-5, 9, 11-13 and 17 and specifically "maintained" in the final Office Action, is respectfully traversed.

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Appellant is entitled to the patent.

A rejection must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, *In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Beis is directed to an optical monitoring system having a video camera with a first sensing unit to produce black and white images and a second sensing unit for producing color images. See the abstract of Beis, in this regard. When the incoming light is in a range below a certain threshold, Beis activates the black and white sensing means and deactivates the color sensing means and, when the incoming light is in a range above the threshold, Beis activates the color sensing means and deactivates the black and white sensing means. See the claims of

Beis in this regard. Beis discloses a single lens system or objective 1 and fails to disclose any control of its single lens system or objective 1.

The final Office Action clearly admits that Beis does not disclose the details of its lens system.

Appellant respectfully submits that not only does Beis not disclose the details of its lens system, but Beis also does not disclose any control movement of its lens in general, let alone in accordance with the photographing mode set on the basis of comparing the detected illumination with a reference illumination, as recited, or by loading corresponding pre-stored trace data of the lens, also as recited.

To remedy these deficiencies, the final Office Action turns to Chino.

Chino discloses a digital video cassette recorder (VCR) that has a zoom lens and an auto-focus mechanism that maintains the image in focus while the lens is zoomed. See Col. 1, lines 13-20, for example. Chino's invention is directed to a VCR that inserts a neutral density (ND) filter into and removes the neutral density filter from the optical path of its zoom lens – see col. 4, lines 28-33. Chino discloses that when the ND filter is inserted into, or removed from, the optical path of its zoom lens, the lens goes out of focus – see col. 4, lines 53-61, for example.

Chino's invention is directed to eliminating the out-of-focus problem that is caused by insertion and/or removal of a neutral density filter from his VCR zoom lens path – see, for example, cols. 5-8 and Chino's claims.

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In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention.

Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. These showings must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999). Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the

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manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Moreover, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Also, the factual inquiries set forth in Graham v. John Deere, 383 U.S. 1, 148 USPQ 459 (1966) that should be applied to establish a background for determining obviousness should be made.

However, these inquiries are not found in the final Office Action with respect to independent Claim 1.

The final rejection of claims 1-5, 9, 11-13, 17 and 26-27 primarily responds to arguments raised by Appellant in the remarks portion of the Amendment filed on July 19, 2005. Based on the tenor of the responses, it appears that the previously stated (in the rejection mailed April 22, 2004) grounds of rejection of claims 1-5, 9, 11-13 and 17 are being repeated and

applied to those claims and to apparatus claims 26 and 27 (that correspond to method claims 1 and 11).

Appellant's undersigned representative contacted Examiner Jelinek on March 1, 2005 and Examiner Jelinek kindly stated that he appreciated Appellant's concerns and confirmed that the rationale of the previous rejection was being repeated in the final Office Action.

Under the circumstances, Appellant respectfully submits that this rejection of claims 1-5, 9, 11-13, 17 and 26-27 is improper and should be reversed for the reasons presented below.

The final Office Action concludes that it would be obvious to modify Beis with the zoom lens of Chino to use the zoom lens of Chino to provide detailed images of far away objects. The rationale for this is the allegedly well-known ability of a zoom lens to allow distant objects to be imaged and the unsupported conclusion that providing a zoom lens for Beis would enhance its surveillance function.

Going even further, the final Office Action speculatively asserts that the zoom capability provided by Chino would operate with the set photographing mode because zooming would take place in both modes.

Appellant respectfully submits that the final Office Action fails to meet its burden of demonstrating proper motivation for one of ordinary skill in the art to modify Beis as proposed.

First, the final Office Action does not correctly address the fact that Beis and Chino are concerned with distinctly different problems, and that they function differently. Beis discloses a surveillance camera with a fixed lens that is not adjusted and cannot zoom, and contains no disclosure or suggestion of using a zoom lens system or a zoom lens system with autofocus or a system that uses a neutral density filter that upsets autofocus.

In response to this previously presented argument, the final Office Action alleges that Appellant is arguing that Beis and Chino are non-analogous art. This is not true. All that Appellant alleged is that Beis and Chino are concerned with distinctly different problems. The final Office Action indicates that both references are concerned with inserting and removing a filter from an optical path. Appellant responds to this by stating that so are almost all photographic optical systems and this characteristic alone is nothing more than a broad general teaching of almost any photographic system that does not constitute evidence of proper motivation to modify Beis in view of Chino, as noted in Dembczak, cited above. The final Office Action notes that Chino teaches a zoom lens that compensates an out-of-focus condition caused by the insertion or removal of an optical filter. However, Beis does not share this feature in common with Chino because Beis has no autofocus system or a zoom lens. Thus, this is not a shared feature of both references.

The final Office Action also states that in no way does the previous Office Action suggest supplanting the optical filter of Beis with a neutral density filter

and that it is clear that the zoom lens of Chino would function in harmony with the optical filter of Beis.

Appellant respectfully submits that this admission in the final Office Action further teaches away from the proposed modification of Beis by Chino because each reference discloses the use of only a single filter. There is no teaching in either reference of using two filters, especially of one using a zoom lens in Beis instead of the Beis fixed focus lens.

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant. See W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1550-51, 220 USPQ 303, 311 (Fed. Cir. 1983) (the totality of a reference's teachings must be considered), cert. denied, 469 U.S. 851 (1984); In re Sponnoble, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969) (references taken in combination teach away since they would produce a "seemingly inoperative device"); In re Caldwell, 319 F.2d 254, 256, 138 USPQ 243, 245 (CCPA 1963) (reference teaches away if it leaves the impression that the product would not have the property sought by the applicant). See, In re Gurley, 31 USPQ2d 1130 (Fed. Cir. 1994).

In this case, Beis, the primary reference, is directed to surveillance cameras operating in day mode and night mode. Beis uses black and white image sensing during the nighttime and uses color imaging at night, selecting the appropriate type if sensing by using a light sensitive, e.g., twilight switch – see col. 2, lines 13-36 of Beis. In col. 6, lines 33-39, Beis indicates that the infrared filter needed for color exposures can either be switched into and out of the light path or can be fixedly mounted on the color sensing cells.

Beis indicates no problem with focusing in either situation, i.e., regardless of whether the infrared filter is switched into and out of the light path or is fixedly mounted on the color sensing cells. This is understandable because Beis does not teach a zoom lens system. Beis discloses nothing more than a single objective lens fixed focus system 1, which does not need to adjust focus when a filter is inserted therein.

Chino, on the other hand, contains no disclosure or suggestion of (1) a surveillance camera system, or (1) a fixed focus lens, or (2) how to identify an object of interest to zoom in on or away from in a surveillance operation; or (3) how to track an object of interest to zoom in on or zoom away from in a surveillance operation.

Moreover, Chino is disclosed as an image pickup for a digital VCR and is concerned primarily with maintaining a zoom image in focus when a filter is inserted into and/or out of the zoom lens system.

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Appellant respectfully submits that these substantial differences between the references teach away from combining them, as suggested.

Beis has no disclosure or suggestion of using a zoom lens system for surveillance, nor does Chino, and Beis' fixed lens system has no need for a focus change when a filter is inserted into and/or out of its light path.

Moreover, the final Office Action fails to provide any objective factual evidence that one or ordinary skill in the art would desire to modify a relatively fixed focus surveillance camera like that of Beis with a sophisticated autofocus zoom lens system incorporating a neutral density filter. See, in this regard, In re Lee, cited above.

Furthermore, as pointed out above, the mere fact that these two references may be combined in some way does not make the modification obvious unless the prior art suggested the desirability of the modification.

All that is presented in terms of motivation is the alleged desirability of providing detailed images of far away objects. However, this statement is nothing more than a broad, conclusory, speculative statement that, standing alone, is not evidence of motivation to modify Beis and provide a Beis with a zoom lens having autofocus characteristics and a neutral density filter. See In re Dembiczak, cited above, in this regard.

Appellant respectfully submits that the only motivation for combining these two disparate references is improper hindsight reconstruction of Appellant's invention using Appellant's disclosure against Appellant.

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Moreover, even if these references were combined as suggested, they would not result in the claimed invention because Beis does not control movement of its lens at all and there would be no incentive to move the newly applied Beis-Chino zoom lens in accordance with the set (b/w or color detection) photographing mode. Neither applied reference discloses or suggests such a feature. The only incentive to control movement of the Beis-Chino zoom lens would be when the lens goes out of focus, but this is not what is claimed.

In response to this argument, the final Office Action states that it is well known to provide a video camera having a variable focal length to permit selective magnification of the image captured by the camera, thereby allowing the operation of the camera to zoom in on an object of interest, and when video cameras are employed in security surveillance systems, it is often desirable that the zoom condition of the camera be changed very rapidly, either to zoom in on a scene of interest in the event of an alarm or the like, or to make a rapid transition from one scene to another in a predetermined sequence of surveillance scenes. This argument is relying on speculation and not on objective factual evidence of record. There is no objective factual evidence of record of a zoom surveillance camera or of any motivation to modify Beis' fixed focus surveillance camera to make it become a zoom lens surveillance camera.

Appellant respectfully submits that this entire argument in the final Office Action is speculation, unsupported by objective factual evidence. As noted in In re Lee, cited above, on page 5 of this Reply, a rejection must be

based on objective evidence of record, not merely conclusory statements of the Examiner. This argument is not supported by any objective factual evidence and, therefore, cannot be given any weight in establishing a *prima facie* case of obviousness of the claimed invention.

Furthermore, with respect to claim 11, there is no disclosure in either applied reference of correlating first trace data to a daylight mode and second trace data to nighttime mode. Presumably, Chino's zoom lens goes in and out of focus only when a neutral density filter is inserted into or removed from the lens path, and there is no disclosure of relating the insertion and/or removal of the neutral density filter to operation in a daytime or nighttime mode, and Beis doesn't even address the issue of using a neutral density filter. In short, there is absolutely no disclosure in either reference of the relationship of the first trace data to a daylight mode and second trace data to nighttime mode or of controlling movement of a lens on the basis of the recited first and second trace data.

The final Office Action's response to this previously presented argument effectively is that both Beis and Chino insert a filter in an optical path and both Beis and Chino remove a filter from an optical path, and the response is based on substituting Chino's variable focus zoom lens for Chino's fixed focus lens. As noted above, with reference to the "Dembczak" decision, simply because both Beis and Chino use a filter does not constitute specific objective factual evidence of proper motivation to replace Beis' fixed focus lens surveillance

system with Chino's variable focus VCR zoom lens. Appellant respectfully submits that perhaps hundreds of thousands of camera references employ filters. That fact alone does not mean that one of ordinary skill in the art would be motivated to combine all of those references. Moreover, because of the significant differences between these two references, which are pointed out in detail above, and which teach away from combining these two references, as suggested, one of ordinary skill in the art would not be motivated to modify Beis in view of Chino, as suggested.

Furthermore, a factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). As neither applied reference even suggests controlling movement of a lens in accordance with a photographing mode set on the basis of comparing detected illumination with a reference illumination value by loading pre-stored lens trace data, and with respect to claim 11, first trace data with respect to a daylight mode and second trace data with respect to a nighttime mode, the motivation for modifying Beis to include such a feature must be based on speculation and/or impermissible hindsight.

Accordingly, this final Office Action fails to make out a *prima facie* case of proper motivation to combine these references in the manner suggested, and therefore fails to make out a *prima facie* case of obviousness of the claimed

invention recited in independent claims 1, 11, 26 and 27, or dependent claims 2-5, 9, 12, 13 and 17.

For the aforementioned reasons, Appellant respectfully submits that this final rejection of claims 1-5, 9, 11-13, 17 and 26-27 is improper and should be reversed.

B. Claims 6-8, 10, 14-16 and 18-25 stand rejected under 35 U.S.C. §103(a) as unpatentable over Beis in view of Chino, and further in view of U.S. Patent 5,959,669 to Mizoguchi. This rejection, presented in the previous Office Action and specifically “maintained” in the final Office Action, is respectfully traversed.

First, the Beis-Chino reference combination is improper for the reasons stated above and those reasons are incorporated herein by reference.

Second, Beis does not disclose a need for an OLPF. As pointed out in the rejection, with reference to Beis, col. 4, lines 33-39, Beis uses a simple infrared cutoff filter. An infrared filter cuts off (absorbs) infrared radiation and passes visible light. Beis’ infrared filter cuts off (absorbs) just the high (infrared) frequencies, while passing the visible frequencies. Without a showing of a need for an OLPF, there is no need to even consider the Mizoguchi reference. Beis discloses no need for such a filter and the final Office Action fails to present objective evidence of such a need.

In response to this previously presented argument, the final Office Action states that Mizoguchi provides clear motivation for (1) providing an OLPF when photographing color in order to eliminate false color and (2) not using a OLPF when photographing in black and white, which involves no false color, in order to realize high resolution (col. 1, lines 40-55). Appellant respectfully disagrees with this characterization of Mizoguchi. In col. 1, lines 40-55, Mizoguchi actually teaches that, when photographing in black and white, one may either remove a low pass filter or use a low pass filter depending on the spatial transmission frequency spectrum of the low pass filter. In other words, Mizoguchi actually teaches using a low pass filter for color or black and white photography, depending on the spatial frequency characteristics of the low pass filter.

Appellant respectfully points out that merely because the prior art can be modified in the manner suggested by the Examiner does not render the modification obvious unless the prior art suggests the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-4 (Fed. Cir, 1992).

Mizoguchi is concerned with different issues than are Beis and Chino. Mizoguchi is concerned with photographing documents (col. 1, lines 35-55) and uses different crystal low pass filters depending on the resolution employed – see col. 3, lines 5-40, for example, whereas Beis is concerned with surveillance using a fixed focus lens 1, and Chino is interested in maintaining autofocus in

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a zoom lens system when the system becomes out of focus due to insertion or removal of a neutral density filter in the path of the zoom lens. Thus, it is clear that Mizoguchi is directed to imaging different objects with different characteristics than either Beis or Chino. For example, Beis does not disclose that it is carrying out surveillance on documents with different resolutions.

In response to this previously presented argument, the final Office Action again mischaracterizes Appellant's argument as a non-analogous art argument. The final Office Action also alleges that the teaching of Mizoguchi is reasonably pertinent to the particular problem to which the Appellant was concerned because Mizoguchi teaches how an OLPF can be used in a day-night camera for optimal resolution and false color suppression of the black-and-white and color photographing. Appellant respectfully disagrees with this characterization of Mizoguchi.

Mizoguchi never once mentions day-night photographing. Mizoguchi only mentions low pass filters in connection with black and white photography and the only example of this that is given is black and white photography of a document. In fact, a computerized word search on "uspto.gov" of Mizoguchi reveals no mention of "night" and the only mention of "day" is found in col. 19, lines 51-61 and has nothing to do with day-night photography.

This alleged teaching in Mizoguchi of how an OLPF can be used in a day-night camera is simply not found in Mizoguchi and reflects the impermissible

hindsight (based solely on Appellant's disclosure) present in this rejection in the final Office Action.

There is no objective evidence of record that would provide proper motivation for one of ordinary skill in the art to turn to the high resolution document camera art exemplified by Mizoguchi that employs a crystal low pass filter designed to reduce or eliminate an aliasing distortion or color moiré in Mizoguchi's system, which has no indication that it has such problems. Moreover, Chino does not disclose that it has the problems that are addressed by Mizoguchi.

This is persuasive evidence that the rejection is based on improper hindsight reconstruction of Appellant's invention based solely on Appellant's disclosure and on the improper practice of picking and choosing individual references to combine without any proper motivation to do so absent solely following Appellant's disclosure to achieve the claimed invention.

Appellant respectfully submits that the final Office Action is picking and choosing references that are not concerned with the same issues and combining them in a completely arbitrary manner based solely on Appellant's disclosure in a completely improper hindsight manner.

Accordingly, the final Office Action fails to make out a *prima facie* case of proper motivation to combine these references in the manner suggested, and therefore fails to make out a *prima facie* case of obviousness of the claimed invention.

Further, with respect to claim 21, there is no disclosure in either applied reference of relating first trace data to a daylight mode and second trace data to a nighttime mode. Presumably, Chino's zoom lens goes in and out of focus only when a neutral density filter is inserted into or removed from the lens path, and there is no disclosure of relating the insertion and/or removal of the neutral density filter to operation in a daytime or nighttime mode, and Beis doesn't even address the issue of using a neutral density filter. In short, there is absolutely no disclosure in either reference of the relationship of the first trace data to a daylight mode and second trace data to a nighttime mode or of controlling movement of a lens on the basis of the recited first and second trace data.

For the aforementioned reasons, Appellant respectfully submits that this final rejection of independent claim 21 and of dependent claims 6-8, 10, 14-16, 18-20 and 22-25 is improper and should be reversed.

C. Additional Rejections under 35 U.S.C. § 103

In addition to maintaining the previous rejections, the final Office Action presents additional rejections of the claims, as amended.

C.1. Claims 1-5, 9, 11-13, 17 and 26-27 stand additionally rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,172,220 to Beis in view of U.S. Patent 6,046,863 to Chino. This rejection, presented in the previous Office Action regarding claims 1-5, 9, 11-13 and 17 and specifically "maintained" in the final Office Action, is respectfully traversed.

Appellant incorporates herein the reasons presented above in traversal of the maintained rejection of these claims. Appellant also presents the following un-rebutted arguments in traversal of this new rejection.

First, Chino contains no disclosure of (1) a surveillance camera, (2) how to identify an object of interest to zoom in on or away from in a surveillance operation; (3) how to track an object of interest to zoom in on or zoom away from in a surveillance operation. The final Office Action provides no objective factual evidence to motivate one of ordinary skill in the art to use Chino as a surveillance camera or to replace the fixed focus lens of Beis with the variable focus zoom lens system of Chino, which is not even disclosed to be used as a surveillance camera. Neither reference discloses using a surveillance camera with a zoom lens feature and neither reference discloses a system to make the proposed combination operate properly without further invention.

Second, the final Office Action fails to provide objective evidence that one or ordinary skill in the art would desire to modify a fixed focus surveillance camera like that of Beis with a sophisticated autofocus zoom lens system incorporating a neutral density filter. This argument was presented in the amendment filed on July 19, 2004 and remains un-rebutted.

As pointed out above, the mere fact that these two references may be combined in some way does not make the modification obvious unless the prior art suggested the desirability of the modification.

Further, with respect to claims 4 and 5, Chino does not disclose or suggest daytime and nighttime modes and/or a system designed to switch between a daytime mode and a nighttime mode. In this regard, the final Office Action alleges that Chino teaches that the insertion or removal of a filter corresponds to daytime or nighttime modes. Appellant respectfully submits that this correspondence was not recognized by Chino and that Appellant's disclosure is impermissibly being relied upon in a hindsight manner as a basis for a teaching of such a correspondence.

Further, with respect to claim 4, the final Office Action states what the Beis-Chino reference combination teaches. Appellant respectfully submits that this argument begs the question of whether it is proper to modify Beis in view of Chino, as suggested, and that the final Office Action has not made out a *prima facie* case that a skilled worker would be properly motivated to modify Beis in view of Chino, for reasons presented above.

Further, regarding claim 11, the final Office Action alleges that one of ordinary skill in the art would have loaded the first trace data in a daytime mode and loaded a second trace data in a nighttime mode in order to fix an out of focus condition, referencing Chino, col. 1, lines 28-52. Appellant respectfully disagrees. In col. 1, lines 28-52, Chino never mentions a daytime mode and a nighttime mode and, as pointed out above, never mentions a nighttime mode at all. In fact, in this portion of Chino, the prior art is being discussed, not Chino's invention. In this regard, Appellant respectfully submits that it would not be obvious to revert to the prior art in view of Chino's teaching of the advantages of his system over the prior art.

Moreover, Chino never discusses a daytime mode and/or a nighttime mode of operation, or of using zoom tracking data in such non-disclosed modes, or of limiting use of one type of zoom tracking data at night and a different type of zoom tracking data during the day. This is another reason that these two references teach away from being combined as suggested by the final Office Action.

Regarding claim 26, this rejection corresponds to the rejection of claim 1, and is respectfully traversed for the reasons presented above regarding the traversal of the rejection of claim 1.

Regarding claim 27, this rejection corresponds to the rejection of claim 11, and is respectfully traversed for the reasons presented above regarding the traversal of the rejection of claim 11.

For the aforementioned reasons, Appellant respectfully submits that this final rejection of independent claims 1, 11, 27 and 27, and of dependent claims 2-5, 9, 12-13 and 17 is improper and should be reversed.

C.2. Claims 6-8, 10, 14-16, 18-25 and 28 stand rejected additionally under 35 U.S.C. §103(a) as unpatentable over Beis in view of Chino, and further in view of U.S. Patent 5,959,669 to Mizoguchi. This rejection is respectfully traversed.

Appellant incorporates herein all of the reasons presented above in traversal of the maintained rejection of these claims.

Appellant also presents the following additional arguments in traversal of this new rejection.

With respect to claim 6, the final Office Action never establishes that Beis has a color image aliasing problem to be corrected, and, thus fails to present objective factual evidence that one of ordinary skill in the art would turn to Mizoguchi to modify the improper Beis-Chino reference combination.

With respect to claim 21, there is no disclosure in either applied reference of relating first trace data to a daylight mode and second trace data to nighttime mode. Presumably, Chino's zoom lens goes in and out of focus only

when a filter is inserted into or removed from the lens path, and there is no disclosure of relating the insertion and/or removal of a filter to operation in a daytime or nighttime mode. Chino itself does not disclose inserting and removing an infrared filter under any specific circumstances, and has no disclosure of separate nighttime and daytime modes of operation. In short, there is absolutely no disclosure in either reference of the relationship of the first trace data to a daylight mode and second trace data to nighttime mode or of controlling movement of a lens on the basis of the recited first and second trace data. This is another reason tending to teach away from combining these two references, as suggested.

Regarding claim 28, this rejection corresponds to the rejection of claim 21, and is respectfully traversed for the reasons presented in this Amendment regarding the traversal of the rejection of claim 21. Claim 28 recites device features that correspond substantially to method features recited in claim 21.

For the aforementioned reasons, Appellant respectfully submits that this final rejection of independent claims 21 and 28 and of dependent 6-8, 10, 14-16, 18-20 and 22-25 is improper and should be reversed.

Accordingly, for the aforementioned reasons, Appellant respectfully submits that the final Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 1-28.

For all of the aforementioned reasons, Appellant respectfully submits that the final rejections of claims 1-28 are improper and should be reversed.

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VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A do include the amendments filed by Applicant on April 22, 2005.

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IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

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X. RELATED PROCEEDINGS

No related proceedings are referenced in II above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By:



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CLAIMS APPENDIX

1. (Previously Presented) A control method of a CCD (Charge-Coupled Device) camera having at least one photographing mode, comprising:
 - pre-storing trace data of a lens for the CCD camera;
 - detecting an illumination of a photographing region to be photographed with the CCD camera;
 - comparing the detected illumination with a reference illumination value;
 - setting a photographing mode of the CCD camera on the basis of comparing the detected illumination with a reference illumination value; and
 - controlling a movement of a lens of the CCD camera in accordance with the set photographing mode by using corresponding pre-stored trace data of the lens.
2. (Original) The method of claim 1, wherein the photographing mode is set as a daytime mode when the detected illumination is not less than the reference illumination value.
3. (Original) The method of claim 1, wherein the photographing mode is set as a nighttime mode when the detected illumination is not greater than the reference illumination value.
4. (Previously Presented) The method of claim 1, wherein the pre-stored trace data comprises first trace data and second trace data, and controlling the movement of the lens further comprises :
 - loading pre-stored first trace data in the daytime mode;
 - loading pre-stored second trace data in the nighttime mode; and

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controlling a movement of the lens on the basis of the loaded first and second trace data.

5. (Previously Presented) The method of claim 1, wherein the first trace data and the second trace data comprise information for controlling a movement of the lens when the photographing mode is converted into the daytime mode and the nighttime mode, respectively.

6. (Previously Presented) The method of claim 5, wherein an object is photographable in a visible ray region through an OLPF (Optical Low Pass Filter) in the daytime mode.

7. (Previously Presented) The method of claim 5, wherein an object is photographable in an infrared ray region without passing through an OLPF (Optical Low Pass Filter) in the nighttime mode.

8. (Previously Presented) The method of claim 7, wherein the CCD camera has a lens unit comprising an optical low pass filter that is mechanically switched in or out of an optical path of the lens unit according to a photographing mode.

9. (Previously Presented) The method of claim 1, wherein the CCD camera comprises a control unit, and further comprising:
storing the trace data in a memory of the CCD camera and loading the trace data into the control unit of the CCD camera upon conversion of the photographing mode.

10. (Original) The method of claim 1, wherein the trace data includes values for compensating a focus error of the lens in accordance with the use or not of an OLPF (Optical Low Pass Filter) in the lens.

11. (Previously Presented) A control method of a CCD (Charge-Coupled Device) camera that has a daytime and a nighttime photographing mode, comprising:

detecting an illumination of a photographing region to be photographed by a CCD camera;

setting a photographing mode of the CCD camera to a daytime mode or a nighttime mode by judging whether the detected illumination is less or greater than a reference illumination value;

pre-storing first trace data and second trace data in a memory;

loading the first trace data in the daytime mode;

loading the second trace data in the nighttime mode; and

controlling a movement of a lens of the CCD camera on the basis of the first trace data and the second trace data.

12. (Previously Presented) The method of claim 11, further comprising:

setting the daytime mode when the detected illumination is not less than the reference illumination value.

13. (Previously Presented) The method of claim 11, further comprising:

setting the nighttime mode when the detected illumination is not greater than the reference illumination value.

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14. (Previously Presented) The method of claim 11, further comprising:

photographing an object in a visible ray region through an OLPF (Optical Low Pass Filter) of the lens in the daytime mode.

15. (Previously Presented) The method of claim 11, further comprising:

photographing an object in an infrared ray region without passing through an OLPF (Optical Low Pass Filter) of the lens in the nighttime mode.

16. (Previously Presented) The method of claim 15, further comprising using the second trace data for compensating a focus error in accordance with the non-use of the OLPF.

17. (Previously Presented) The method of claim 11, wherein the first trace data and the second trace data is pre-stored in a memory in a map format.

18. (Original) The method of claim 11, wherein the first trace data is for compensating a focus error of the lens varied through an OLPF (Optical Low Pass Filter) in the lens in the daytime mode.

19. (Previously Presented) The method of claim 18, wherein the CCD camera comprises a lens unit and an optical low pass filter is included in the lens unit of the CCD camera and is mechanically switchable in and out of an optical path of the lens.

20. (Original) The method of claim 11, wherein the second trace data is for compensating a focus error of the lens varied by not passing through the OLPF in the nighttime mode.

21. (Previously Presented) A control method of a CCD (Charge-Coupled Device) camera having a lens and a nighttime mode and a daytime mode, comprising:

pre-storing first and second trace data of a lens for the CCD camera;
detecting an illumination of a photographing region to be photographed by a CCD camera;

converting a photographing mode of the CCD camera into the daytime mode or the nighttime mode by judging whether the detected illumination is not less or greater than a reference illumination value;

loading the first trace data for controlling a lens of the CCD camera so as to photograph the photographing region through an OLPF (Optical Low Pass Filter) when the photographing mode is converted into the daytime mode;

loading the second trace data for controlling the lens of the CCD camera so as to photograph the photographing region without imaged light of the photographing region passing through the OLPF when the photographing mode is converted into the nighttime mode; and

adjusting a focus of the lens of the CCD camera on the basis of the loaded trace data.

22. (Previously Presented) The method of claim 21, wherein the first trace data and the second trace data are usable for compensating a focus error in accordance with the use or not of the OLPF.

23. (Previously Presented) The method of claim 21, further comprising:

performing the first trace data loading process in the daytime mode.

24. (Previously Presented) The method of claim 21, further comprising:

performing the second trace data loading process in the nighttime mode.

25. (Previously Presented) The method of claim 21, wherein the optical low pass filter is included in the camera and is mechanically switchable in or out of an optical path of the lens in accordance with the photographing mode.

26. (Previously Presented) A CCD (Charge-Coupled Device) camera having at least one photographing mode, comprising:

means for pre-storing trace data of a lens for the CCD camera;

means for detecting an illumination of a photographing region to be photographed with the CCD camera;

means for comparing the detected illumination with a reference illumination value;

means for setting a photographing mode of the CCD camera on the basis of comparing the detected illumination with a reference illumination value; and

means for controlling a movement of a lens of the CCD camera in accordance with the set photographing mode by using corresponding pre-stored trace data of the lens.

27. (Previously Presented) A CCD (Charge-Coupled Device) camera that has a daytime and a nighttime photographing mode, comprising:

means for detecting an illumination of a photographing region to be photographed by a CCD camera;

means for setting a photographing mode of the CCD camera to a daytime mode or a nighttime mode by judging whether the detected illumination is less or greater than a reference illumination value;

means for pre-storing first trace data and second trace data in a memory;

means for loading the first trace data in the daytime mode;

means for loading the second trace data in the nighttime mode; and

means for controlling a movement of a lens of the CCD camera on the basis of the first trace data and the second trace data.

28. (Previously Presented) A CCD (Charge-Coupled Device) camera having a lens and a nighttime mode and a daytime mode, comprising:

means for pre-storing first and second trace data of a lens for the CCD camera;

means for detecting an illumination of a photographing region to be photographed by a CCD camera;

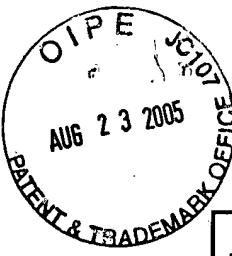
means for converting a photographing mode of the CCD camera into the daytime mode or the nighttime mode by judging whether the detected illumination is not less or greater than a reference illumination value;

means for loading the first trace data for controlling a lens of the CCD camera so as to photograph the photographing region through an OLPG (Optical Low Pass Filter) when the photographing mode is converted into the daytime mode;

means for loading the second trace data for controlling the lens of the CCD camera so as to photograph the photographing region without imaged

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light of the photographing region passing through the OLPF when the photographing mode is converted into the nighttime mode; and
means for adjusting a focus of the lens of the CCD camera on the basis of the loaded trace data.



Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEES TRANSMITTAL For FY 2005

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500.00)

Complete if Known	
Application Number	09/899,066-Conf. #003176
Filing Date	July 6, 2001
First Named Inventor	Se PARK
Examiner Name	B. J. Jelinek
Art Unit	2615
Attorney Docket No.	0630-1287P

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____
 Deposit Account Deposit Account Number: 02-2448 Deposit Account Name: Birch, Stewart, Kolasch & Birch, LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

<input type="checkbox"/> Charge fee(s) indicated below	<input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee
<input checked="" type="checkbox"/> Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17	<input checked="" type="checkbox"/> Credit any overpayments

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

<u>Application Type</u>	<u>FILING FEES</u>		<u>SEARCH FEES</u>		<u>EXAMINATION FEES</u>		
	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	<u>Fees Paid (\$)</u>
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description

Each claim over 20 (including Reissues)

<u>Small Entity</u>	
<u>Fee (\$)</u>	<u>Fee (\$)</u>

50 25

Each independent claim over 3 (including Reissues)

200 100

Multiple dependent claims

360 180

<u>Total Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 20 =	x	=	

<u>Multiple Dependent Claims</u>	
<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>

<u>Indep. Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 3 =	x	=	

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 100 =	/50	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): 1402 Filing a brief in support of an appeal 500.00

SUBMITTED BY

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Name (Print/Type)	Scott L. Lowe	#41,458		Date	August 23, 2005